

Mineral Industry Surveys

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TIN IN SEPTEMBER 2003

Domestic consumption of primary tin in September was estimated by the U.S. Geological Survey to be 1% lower than that in August and 1% higher than that in September 2002.

The Platts Metals Week average composite price for tin in September was \$3.41 per pound, 1% above that in August, and 19% above that in September 2002.

Tin prices on the London Metal Exchange (LME) continued to rise, following the pattern of sharp rises in some other base metals, climbing to a near three-year high by fund-driven buying and currency movements (Platts Metals Week, 2003a).

Weirton Steel Corp. (Weirton, WV), the second largest U.S. tinplate producer, filed a plan to restore the company from Chapter 11 bankruptcy. Weirton filed for bankruptcy protection on May 19 and hopes to be a stand-alone company by December 31. The U.S. Court of Appeals for the Federal Circuit, Washington, DC, ruled in favor of Weirton Steel and the U.S. International Trade Commission against four Japanese producers-exporters of tin mill products—Nippon Steel, NKK, Kawasaki Steel, and Toyo Kohan. The ruling retains a 95% tariff in addition to a 24% tariff for a total of 119%. Weirton's plan is to continue its iron making, steel making, and finishing operations with financing guaranteed under the Emergency Steel Loan Guarantee program. Fleet Capital Corp. is to provide \$175 million in "emergence" financing if the loan board approves the plan. Under the program, the U.S. Government will guarantee 85% to 95% of the loan (Platts Metals Week, 2003c).

Tin Technology (Uxbridge, United Kingdom), the world's foremost tin research laboratory, announced that world tin consumption increased by 6% in the first half of 2003, compared to the same period in 2002. Annual consumption in 2003 is forecast to rise to 293,000 metric tons (t), while the 2004 total is forecast to top 300,000 t for the first time. These estimates were presented to the Board of Tin Technology by CRU International, Ltd. Several key points were made by CRU:

- Asia accounts for more than one-half of world demand and is the most rapidly growing market in the world. Consumption in Asia in the first half of 2003 increased by 10% over that of the same period in 2002.

- As is the case for many metals, China accounts for most of worldwide tin demand growth due to rising local demand and the transfer of manufacturing activity from elsewhere in the world.
- Tin consumption in Japan rose by almost 20% in the first half of 2003, partly reflecting a switch to lead-free soldering there. The use of high-tin, lead-free solders will have a major positive impact on tin use as they are adopted throughout the world in coming years.
- World tin consumption also will be stimulated by a strengthening American economy, including some recovery in the electronics sector.

CRU's World Refined Tin Consumption Forecast for 2004 (Thousand metric tons)

China	69.0
Japan	29.0
Other Asian countries	57.0
United States	51.0
Other North and South American countries	16.5
Europe	72.5
Other	6.0
Total	301.0

CRU concluded that global tin demand would exceed refined tin supply by 18,000 t in 2003 and 16,000 t in 2004. This lends support to forecasts of LME tin prices rising more than \$6,000 per metric ton during 2004 (Tin Technology, 2003).

The TUI Group (Germany), previously known as the Preussag Industrial Group, announced that it was selling its metals subsidiary, Amalgamated Metal Corp. (AMC) to AMC's senior management for \$225 million. AMC's trading, distribution, and manufacturing interests include an LME brokerage (Amalgamated Metal Trading), a nonferrous physical trading group (focused on aluminum alloys and tin), and the Thaisarco

tin smelter in Thailand. AMC has 3,000 employees (CRU Tin Monitor, 2003).

Marlborough Resources plc announced that it plans to expand output at its Ardlethan Tin Mine in New South Wales (Australia) by 70% to 2,200 t/yr of tin-in-concentrate. Production at the mine was reported to be running at record levels, but the installation of a second treatment plant is seen as an opportunity to optimize the mine's scale of operations (CRU Tin Monitor, 2003).

Minsur (Peru), the world's second largest tin producer, reportedly is considering an expansion of both mine and refined tin output. Minsur's output in the first 9 months of 2003 was 7% greater than the same period in 2002. Since 2002, Minsur's mine production has been refined only by the company (CRU Tin Monitor, 2003).

PT Timah (Indonesia), the world's largest tin producer, indicated that the company's proposed new smelter on Kundur Island near Singapore remains in an initial planning stage. The officials did not provide the estimated cost or scale of the proposed smelter, but said current, firmer tin prices of about \$5,000 per metric ton were encouraging for the smelter's planners. The proposed smelter is expected to reduce transportation costs by smelting ore dredged nearby by Timah. Currently, the ore dredged around Kundur Island is shipped to Mentok Island for smelting. Timah's combined tin smelting capacity at seven plants on Mentok Island is 48,000 t/yr (Platts Metals Week, 2003b).

In Thailand, tin miner Tongkah Harbour produced only 56,000 kilograms (kg) of tin-in-concentrate in the January-to-August 2003 period compared with 227,000 kg in the same period of 2002. Officials attributed the large decrease to a halt in offshore mining for maintenance of dredges and other equipment during part of the period. Tongkah sells all of its ore to Thailand's only tin smelter, Thaisarco (Platts Metals Week, 2003d).

In Bolivia, the country's largest tin mine, Huanuni, lifted its declaration of *force majeure* after a 20-day labor strike and planned to resume production. The strike was part of a countrywide popular revolt against Bolivia's president, who subsequently resigned. Huanuni has the capacity to produce 300-350 t of tin monthly (Metal-Pages, 2003¹).

Reports from Brazil indicate that production of tin-in-concentrate decreased 11% to 11,600 t in 2002. Mamoré Mineração e Metalurgica (Paranapanema Group) produced 8,800 t; Cesbra, 1,200 t; and others, 1,600 t. Refined tin output fell 2% to 12,000 t. Mamore produced 8,800 t, Cesbra 1,400 t, Best 400 t, and others 1,400 t. Exports fell by 6% to 6,000 t, and were shipped mainly (79%) to the United States. The Pitinga mine, owned by Mamoré, will continue producing tin from alluvial ore until 2004 by retreating old dumps at the mine (Mining Journal, 2003).

¹A reference that includes a section mark (§) is found in the Internet Reference Cited section.

In China, there were reports that further consolidation in the tin industry is expected. Yunnan Tin Corporation, the country's largest tin producer, with its brand registered on the LME, has been seeking acquisitions. Reports indicate that Yunnan may acquire the country's second largest tin producer, Liuzhou China Tin, producers of the "JH" registered brand. China Tin has suffered from the closure of its Gaofeng tin mine, which was shut down by the government in April 2002 following a fatal accident. With an installed capacity of 24,000 t, China Tin only produced 14,000 t in 2002. If Yunnan were to acquire China Tin it would create a fully integrated producer on par in size with Timah (Indonesia) (Tin World, 2003).

In Germany, the country's troubled recycling program for single-use beverage containers collapsed after new measures aimed at simplifying the container return system backfired. Consumers throughout the country, who had found the original system to be too cumbersome, reportedly amassed cans and bottles valued at some 1.6 billion euro (€) (\$1.9 billion) in unclaimed deposits. When they began to return their empty containers in large quantities under the changed system, it collapsed from the strain. The original system required shoppers to return their empty beverage cans and bottles to the point of purchase to claim the €0.25 (29-cent) deposit, but that requirement was relaxed under the new system to allow returns at any outlet. The new system was developed in response to a July directive by the European Commission for Germany to implement a nationwide return system by October 1, 2003 (American Metal Market, 2003).

Update

On October 31, 2003, the Platts Metals composite price for tin was \$3.64 per pound.

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TABLE 1
SALIENT TIN STATISTICS¹

(Metric tons, unless otherwise noted)

	2003			
	2002 ^p	August	September	January-September
Production, secondary ^{e,2}	10,800	900	900	8,100
Consumption:				
Primary	35,800	3,140 ^r	3,090	28,100
Secondary	10,800	710	713	6,310
Imports for consumption, metal	42,200	3,340	NA	NA
Exports, metal	2,940	366	NA	NA
Stocks at end of period	7,280	6,250	6,200	XX
Prices (average cents per pound): ³				
Metals Week composite ⁴	291.97	335.84	340.70	XX
Metals Week New York dealer	194.75	229.44	233.67	XX
London, standard grade, cash	184.00	219.00	223.00	XX
Kuala Lumpur	184.35	218.48	221.02	XX

^eEstimated. ^pPreliminary. ^rRevised. NA Not available. XX Not applicable.

¹Data are rounded to no more than three significant digits, except prices.

²Includes tin recovered from alloys and tinplate. The detinning of tinplate (coated steel) yields only a small part of the total.

³Source: Platts Metals Week.

⁴The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges, and a risk factor. It is normally substantially higher than other tin prices.

TABLE 2
METALS WEEK COMPOSITE PRICE¹

(Cents per pound)

Period	High	Low	Average
2002:			
September	295.72	277.95	286.19
October	308.99	294.63	302.39
November	306.01	297.88	301.54
December	306.94	298.78	302.37
Year	316.83	267.12	291.97
2003:			
January	320.43	303.14	313.84
February	333.87	310.69	322.82
March	330.75	318.70	323.84
April	326.53	317.74	321.54
May	333.80	325.19	330.58
June	335.08	324.38	329.44
July	335.48	324.04	331.38
August	339.23	332.37	335.84
September	347.80	336.59	340.70

¹The Metals Week composite price is a calculated formula, not a market price that includes fixed and finance charges, and a risk factor. It is normally substantially higher than other tin prices.

Source: Platts Metals Week.

TABLE 3
TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES¹

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			Shipments ²
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	
2002 ^p	61,100	2,400,000	7,440	3.1	2,100,000
2003:					
January	2,790	216,000	642	3.0	180,000
February	2,510	214,000	640	3.0	156,000
March	W	225,000	686	3.1	156,000
April	W	217,000	704	3.2	165,000
May	1,780	215,000	536	2.5	158,000
June	W	208,000	732	3.5	173,000
July	W	205,000	659	3.2	176,000
August	W	199,000 ^r	692 ^r	3.5	170,000
September	W	197,000	629	3.2	NA

^pPreliminary. ^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data.

¹Data are rounded to no more than three significant digits.

²Source: American Iron and Steel Institute monthly publication.

TABLE 4
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS¹

(Metric tons)

Country or product	2003			January- August
	2002	July	August	
Imports:				
Metal (unwrought tin):				
Bolivia	6,150	745	826	4,780
Brazil	4,840	325	125	2,240
China	7,600	445	235	3,080
Indonesia	3,340	300	620	2,420
Malaysia	122	29	--	325
Peru	19,900	1,840	1,430	13,500
Russia	21	--	--	--
United Kingdom	2	14	41	104
Other	264	96	65	547
Total	42,200	3,800	3,340	27,000
Other (gross weight):				
Alloys	3,530	365	349	2,290
Bars and rods	224	25	16	241
Foil, tubes, pipes	1	1	(2)	4
Plates, sheets, strip	128	66	28	120
Waste and scrap	561	33	2	684
Miscellaneous	7,810	187	247	1,690
Total	12,300	677	642	5,020
Exports (metal)	2,940	267	366	2,350

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 5
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT¹

(Metric tons of contained tin)

Product	2002 ^p	2003						
		August			September			January- August
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) ²	1,660	140	W	140	141	W	141	1,360
Babbitt	501	15	W	15	14	W	14	169
Bar tin and anodes	192	15	W	15	16	W	16	197
Bronze and brass	2,390	107	128	235	105	136	241	1,790
Chemicals	7,550	697	W	697	697	W	697	6,270
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	14,500	755	266	1,020	772	265	1,040	9,430
Tinning	411	34	--	34	41	--	41	327
Tinplate ³	7,440	692 ^r	--	692 ^r	629	--	629	5,850
Tin powder	W	W	--	W	W	--	W	W
White metal ⁴	W	W	--	W	W	--	W	W
Other	1,110	82	16	98	79	12	91	886
Total reported	35,800	2,540 ^r	410	2,950 ^r	2,490	413	2,910	26,300
Estimated undistributed consumption ⁵	10,800	600	300	900	600	300	900	8,100
Grand total	46,600	3,140 ^r	710	3,850 ^r	3,090	713	3,810	34,400

^pPreliminary. ^rRevised. W Withheld to avoid disclosing proprietary data; included with "Other." -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes terre metal.

³Includes secondary pig tin and tin components of tinplating chemical solutions.

⁴Includes pewter, britannia metal, and jewelers' metal.

⁵Estimated consumption of plants reporting on an annual basis.